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## Environmental factors and participation: The point of view of persons with brain injury and aphasia and that of their proxies

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*Aims* The physical, social and attitudinal environment has been little studied to determine its impact on the participation of individuals with aphasia and family members. Participation–taking part in real life situations–is restricted not only by an individual's physical or communication limitations [1] but also by the quality of the environment. This study explored the perception of individuals with ABI and aphasia and their relatives about the impact of the environment on their visit to a shopping center, a situation of participation.
*Methods* Eight persons with aphasia and eight of their relatives participated in small focus group discussions of 3–5 individuals. The interviews collected were analyzed using a qualitative methodology and classified according to the five environmental factors of the WHO International Classification of Functioning, Disability and Health.
*Results* Physical aspects of the environment (i.e., unsuitable physical adaptations, noise, narrow aisles) were the most mentioned barriers to the participation of persons with aphasia in public places. Secondly, the attitudes and behaviour of staff and other customers were also sometimes unfavourable. For example, staff members were often unable to address the person with aphasia in a manner that fostered communication. Moreover, the largest facilitator for outings to a shopping mall was the help provided by relatives. However, some attitudes such as the desire to protect the other or the lack of knowledge about how to help the person with aphasia had some negative impacts on participation.
*Discussion* Currently, rehabilitation services rarely involve persons with aphasia and family members enough in participation activities in public places. The results of this research confirm that rehabilitation should better integrate the participation needs of people affected by aphasia. In turn, this will contribute to a more inclusive society.
*Keywords* Participation; Environmental factors; Aphasia; Close-others
*Disclosure of interest* The authors have not supplied their declaration of conflict of interest.
*Reference*
[1] Le Dorze G, Salois-Bellerose E, Alepins M, Croteau, Hallé M-C. A description of the personal and environmental determinants of participation several years post-stroke according to the views of people who have aphasia. Aphasiology 2014;28:421–39.

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# Posters

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## Long-term change in nutritional status after severe traumatic brain injury

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*Introduction* In the acute phase, patients who sustained a severe Traumatic Brain injury (TBI) (Glasgow Coma Scale under 8) frequently present malnutrition during critical care. Long-term nutritional outcome after a severe TBI has been less studied. Cognitive impairments and behavioural disorders together with hormonal disorders can lead to persisting malnutrition or over-eating and obesity. The purpose of this study was to follow the weight, the body mass index (BMI), albuminemia and hormonal dosage after a severe TBI.
*Methods* This study relied on a research protocol designed to follow concurrently and prospectively endocrine disorders and cognitive disorders in a cohort of patients with severe TBI (Inspire-TC protocol). In the present work, we focused specifically on the evolution in weight, height, body mass index, albuminemia and endocrine abnormalities. These parameters were collected upon admission to the rehabilitation department, at 4 months, 12 months and 18 months when feasible for the severe TBI patients included in the Inspire-TC protocol. Albuminaemia was measured late after the TBI when patients agreed.
*Results* 10 patients were included. Initially 60% of the patients had biological malnutrition, 10% were overweight, 80% presented a normal BMI and 10% had an insufficient BMI. All patients gained weight during the monitoring with an overweight at 18 months for three patients. Along the overall monitoring, 44% of the patients had hormonal disruptions. The 3 patients with long-term overweight had frontal-temporal brain lesions. All three recovered walking. Only one had hormonal disruptions. Albuminaemia was normal for all patients who accepted to make this bioessay control.
*Conclusion* There is a tendency to gain weight after a severe TBI. Favorable factors include fronto-temporal injuries, and the presence of executive disorders. Endocrine perturbation and immobility can also contribute to overweight but were less frequently observed in this cohort.
*Keywords* Traumatic brain injury; Nutrition; Behavioural disorders
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